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*Indian Standard*

GLOSSARY OF TERMS APPLICABLE TO  
LANDSCAPE AND HORTICULTURE WORK

( *First Revision* )

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MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG  
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# Indian Standard

## GLOSSARY OF TERMS APPLICABLE TO LANDSCAPE AND HORTICULTURE WORK ( First Revision )

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## *Indian Standard*

# GLOSSARY OF TERMS APPLICABLE TO LANDSCAPE AND HORTICULTURE WORK

*( First Revision )*

## 0. FOREWORD

**0.1** This Indian Standard was adopted by the Indian Standards Institution on 30 January 1981, after the draft finalized by the Terminology, Notations, Drawings and Documentation Sectional Committee had been approved by the Civil Engineering Division Council.

**0.2** This standard was first issued in 1968. A revision of this standard has been taken up to incorporate certain changes found necessary in the light of comments received. Additional terms applicable to landscape and horticultural operations have been incorporated in this revision.

**0.3** In the formulation of this standard due weightage has been given to international co-ordination among the standards and practices prevailing in different countries in addition to relating it to the practice in the field in this country.

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## 1. SCOPE

**1.1** This standard covers various terms applicable to landscape and horticultural operations.

## 2. TERMINOLOGY

**2.1** For the purpose of this standard, the following definitions shall apply.

**2.2 Abscission** — The shedding of some part of structure, as a leaf or flower, as the result of the formation of a layer of loosely adhering cells at its base that break apart readily.

**2.3 Absorption** — The process of taking up water and holding it in pores or open spaces as a sponge.

**2.4 Aeration** — Any method which facilitates the entry of air into the interstices of the soil.

**2.5 Autogamy** — When a flower is fertilized by its own pollen.

**2.6 Auxin** — A substance synthesized by a plant and able to influence growth at some point other than the point of synthesis; comparable to a hormone in animals.

**2.7 Bark Ringing** — The removal of a narrow strip of bark from a part or whole of the circumference.

**2.8 Bastard Trenching** — A method of manually cultivating soil to a depth of two spits, reversing the order of top soil and subsoil.

**2.9 Bedding** — The planting of flowering or foliage plants in beds to give massive decorative displays.

**2.10 Blending** — a) Blending of grasses for a lawn.

b) Blending the plants in herbaceous borders.

c) Mixing of colours in annual border to avoid clash of colours.

**2.11 Brush Harrowing** — The use of an implement on which brushes are mounted for improvement of the surface condition of grass areas and removal of dry leaves.

**2.12 Brushing** — Manual or mechanical use of a brush for the improvement of the condition of the surface.

**2.13 Burn off** — The destruction of vegetable growth above or at ground level by burning.

**2.14 Charring** — Protection from decay by the effect of fire used to carbonize the surface of wood.

**2.15 Chlorosis** — A diseased condition shown by loss of green colour that is chlorophyll.

**2.16 Cladophyll** — A stem like leaf.

**2.17 Cleistogamy** — Self pollination without the flower opening.

**2.18 Comb Out** — To carry out a form of raking either manual or mechanical, by which coarse, dead or dying vegetation is removed from old established or neglected grass areas, shrubberies and fruit groves.

**2.19 Compatibility** — a) of sex cells, the ability to unite and form a fertilized egg that can grow to maturity.

b) Congeniality as determined by the degree of success of the union between stock and cion.



**2.20 Composting** — a) The process of converting waste vegetable matter into humus.

b) The application of compost to the soil.

**2.21 Consolidation** — The application of water or pressure to soil to pack the particles more closely without undesirable compaction.

**2.22 Coulure** — The failure of blossoms to set, resulting in a premature drop.

**2.23 Crazy Top** — A disorder of citrus tree associated with an alkaline soil reaction and resulting in a peculiar type of growth.

**2.24 Cross Raking** — Cultivation by raking in two or more transverse directions.

## **2.25 Cultivate ( Verb )**

a) To till the soil by ploughing or other mechanical means.

b) Growing or tending to plant in order to promote growth and subsequent cropping.

## **2.26 Cutting**

**2.26.1 Cutting Back** — The removal of unwanted growth to a specific point, either to protect the plant from diseases or to have desired shape of the plant.

**2.26.2 Cutting Down** — In pruning, removal of top growth usually of multi-stemmed shrubs and other plants to encourage fresh growth from old wood.

**2.26.3 Cutting Out** — In pruning, the removal of dead or diseased wood or any unwanted growth.

**2.26.4 Cuttings** — The portion of a plant used for multiplication.

## **2.27 Damping Down**

a) The moistening of paths and paving to settle dust.

b) The moistening of paths and stagings usually in a greenhouse to maintain or increase humidity.

**2.27.1 Die back** — A disorder of tree, bush and vine fruits characterized by killing back of the younger growth.

**2.27.2 Soaking** — The application of water to plants in open ground pots or containers to the extent of saturating the soil about the roots.

**2.28 Deblossoming** — The cultural practice of removing completely the flowers from a growing plant.

**2.29 Deflowering** — *see* 2.28.

**2.30 Defoliation** — The cultural practice of causing the leaves to fall from a growing plant.

**2.31 Deheading** — The removal of faded flower or seed heads.

**2.32 Digging** — Breaking or loosening the soil by lifting with a spade or fork.

**2.32.1 Digging In** — The incorporation of additional material, such as organic material, fertilizers and soil conditioners into the soil by digging.

**2.32.2 Digging Over** — Cultivation of the soil by a fork to a shallow depth.

**2.32.3 Digging Single ( One Spit Digging )** — Digging to the full depth of a spade or fork.

**2.33 Disbudding** — The removal of unwanted buds.

**2.34 Dividing** — A method of multiplying plants or improving established herbaceous plants either by cutting away or by separating rooted plant plumps.

**2.35 Double Digging** — A method of manually cultivating soil to a depth of two spits.

**2.36 Draw Up** — To move soil towards the plants by use of a drawhoe or similar tool.

**2.37 Dressing**

- a) The treatment of seed by applying a chemical coating ( for example, fungicide, insecticide, repellent ).
- b) The application of fresh soil, peat, compost or other fertilizing material to a plant or turf.
- c) The grooming of bloom or plant for exhibition.

**2.38 Drying Off** — The removal of plants, such as cannas, begonias, dahlias and gladioli, from the soil usually at the start of their dormant season to create an artificial resting period.

**2.39 Dusting** — The application of a fungicide or insecticide in powder form by hand or mechanical means.

**2.40 Dust Tilth** — A method of repeated shallow cultivation of soil surface to create a fine particle layer of top soil for conserving moisture and preventing the germination and development of weeds.

**2.41 Dyloporosis** — A disorder, associated with lack of compatibility between stock and cion, characterized by pores or pits in the wood and corresponding pegs in the bark.

**2.42 Earth Up** — To cover up the lower part of the stem of a plant with soil usually for support or blanching.

**2.43 Edge**

**2.43.1 Edge Cutting** — The cutting of the edge of a lawn to a desired line by hand or by mechanical means.

**2.43.2 Edge Up** — The cutting of a new edge to a lawn by edging tool or similar means.

**2.44 Epinasty** — Drooping of leaves caused by a marked downward bending at the base of the petiole.

**2.45 Exocortis** — A shelling off of the bark of trees.

**2.46 Fallow ( Adjective )** — Land normally used for crop production but left unsown for one or more growing seasons.

**2.47 Fecundity** — The ability of flowers to produce seeds that will germinate.

**2.48 Feeding** — To provide plants or soil with plant nutrient by any means.

**2.49 Fertile** — Soils capable of producing vegetation abundantly.

**2.50 Fertility** — The capacity of a soil to produce vegetation.

**2.51 Fertilization** — The fusion of two gametes to form a new cell.

**2.52 Firm**

**2.52.1 Firm In** — The settlement of a plant at planting, or the resettlement after lifting, by pressing down the soil around it.

**2.52.2 Firming** — Any method of lightly consolidating the surface of the soil.

**2.53 Flame Gunning** — The destruction of vegetative growth above ground by burning off with a flame gun.

**2.54 Flying** — The automatic dispersal of grass cuttings while machine cutting as practised by the use of a rotary or cylinder machine without grass collecting attachments.

**2.55 Foliar Feeding** — To feed plants with soluble nutrients through their leaves.

**2.56 Forking** — Cultivation of the soil by a fork to a shallow depth.

**2.56.1 Forking Over** — Repeated cultivation of soil by a fork.

**2.57 Frencing** — The disease characterized by loss of colour in leaves between the veins.

**2.58 Friable** — The condition of soil or other material ( for example manures, compost ) in which it is readily broken to a finer state.

## 2.59 Frost

**2.59.1 Frost Heave ( Frost Lifting )** — The lifting of a plant in the soil or the lifting of the soil itself due to the expansion caused when water freezes in the soil.

**2.59.2 Frost Screening** — The provision of temporary protection from frost for tender plants.

**2.60 Fruit Setting** — The development of an ovary and adjacent tissues following the blossoming period.

**2.61 Fumigation** — A method of controlling pests and diseases by use of volatile materials in the form of smoke or fumes in the air or to the soil.

**2.62 Gapping** — The filling of gaps in existing rows of plants or hedges to replace losses.

**2.62.1 Gapping Up** — Filling gaps in planted areas by replacing plants that have failed to thrive.

**2.63 Grafting** — A method of propagation where a piece of tissue transplanted from one individual to another or to a different place on the same individual.

**2.64 Grease Banding** — The attachment of sticky bands to the stem of trees to trap ascending, wingless pests.

**2.65 Green Manuring** — The manuring of soil by burying the grown crop *in-situ*, which is rich in nitrogen.

**2.66 Growth Regulator** — Any substance or physical factor, either external or internal, that influences a growth process; in a more restricted sense, a substance that influences growth.

**2.67 Gummosis** — A disorder, particularly of stone and citrus fruits, in which there are small local deposits of gum in tissues of fruit, shoot or some other organ.

**2.68 Gum Spot** — A disorder of stone, citrus and certain other fruits in which there are small local deposits of gum in tissues of fruit, shoot or some other organ.

**2.69 Heeling In** — Laying a plant with its roots in a trench and covering with soil as a temporary measure until planting can be undertaken.

**2.70 Hide Bound** — A condition of restricted growth supposedly by hardening of the bark, so preventing expansion.

**2.71 Hoeing** — A method of shallow cultivation of the soil to break up the surface, dislodge and ultimately remove weed growth.

**2.72 Hormone** — A substance synthesized on animal organism that is able to influence growth at some point other than the point of synthesis; comparable to an auxin in plants.

**2.73 Hosing Down** — The application of water usually under mechanically assisted pressure and a suitable temperature to greenhouse plants mainly practised during summer months as a daily routine to control pests, dirt and humidity.

**2.74 Hydrophyte** — Inability to produce functional gametes of one sex or the other; sometimes used in a more general sense to denote sterility.

**2.75 Incompatibility** — Of sex cells, the inability to unite and form a fertilized egg that can grow to maturity.

**2.76 Infertile** — Soils having a very limited capacity to produce vegetation.

**2.77 Infilling** — The correcting of irregularities in a surface by filling depressions with a suitable material.

**2.78 Interfertility** — The ability of one variety to set fruit and produce seeds that will germinate when pollenized by another variety.

**2.79 Knife Ringing** — A single circumferential knife cut in the stem or branch of a tree.

**2.80 Latent Bud** — A bud, usually concealed, more than one year old, which may remain dormant indefinitely or may develop under certain conditions.

**2.81 Layering** — The method by which stem of a plant is pegged down and covered with a layer of soil so that it takes root and can be detached.

**2.82 Leaf Mould** — Vegetable moulds obtained from leaves and weeds which have decayed well.

**2.83 Lifting** — The loosening and raising of the root ball of a tree or plant by manual or mechanical means.

**2.84 Liming** — The application of lime to the soil.

**2.85 Make Good** — To rectify defective work; to replace dead, drying or inferior plants, turf, etc.

**2.86 Manuring** — The enrichment of soil with farmyard manures or any organic or inorganic fertilizers.

**2.87 Mesophyte** — A plant that grows naturally under conditions of moderate humidity, and neither requires nor will survive culture in water or extreme drought.

**2.88 Minimal Cultivation** — The reduction of physical cultivation methods by the application of chemicals.

**2.89 Mound-up** — To cover up the lower part of the stem of a plant with soil usually to protect tubers or for support or blanching.

**2.90 Mowing** — The cutting of grass by manual or mechanical means.

**2.91 Mulching** — The application of a layer of a suitable material to the surface of the soil to protect the roots of the plants, to conserve moisture, reduce weed growth and reduce fluctuations in soil temperature.

**2.92 Naturalize** — The practice of growing certain plants in simulated wild conditions and allowing them to adopt natural habits and associations.

**2.93 Netting ( Verb )** — The application of protective nets as netting to plants to prevent damage by mammals, birds, vermin or weather.

**2.94 Nicking**

- a) To give a horizontal incision below a bud or lateral shoot to control the flow of sap.
- b) The removal of a small piece of the coat of hard seed to assist germination.

**2.95 Notching** — The removal of a small crescent or triangle of bark to control the flow of sap to a bud or lateral shoot.

**2.96 Over Sowing** — The repair of thin areas of sward by lightly cultivating the surface and sowing additional seed.

**2.97 Parthenocarp** — The production of fruit without true fertilization.

**2.98 Parthenogenesis** — The development of unfertilized proliferation or expansion of parenchyma tissues.

**2.99 Pedicel** — The support of a single flower of an inflorescence.

**2.100 Pegging Down** — A form of training by which shoots are brought down to a horizontal or arched position and held by pegs driven into the soil.

**2.101 Pentosan** — A polysaccharide that yields five carbon sugars on hydrolysis.

**2.102 Perennial** — A plant which lives for more than two years.

**2.103 Plashing ( Pleaching )** — A form of training in which branches and twigs of adjoining plants are roughly intertwined in the form of a screen.

**2.104 Photoperiodism** — The influence of light on direction of growth.

**2.105 Peduncle** — The support of an inflorescence or a flower stalk.

**2.106 Phyllody** — A disorder of plant in which a shoot or branch develops a much larger number of leaves than is normal.

**2.107 Polyembryony** — The production of more than one embryo in an avule.

**2.108 Pricking** — The light disturbance of soil surface with a fork.

**2.108.1 Pricking Off** — Removal of seedlings from an overcrowded seed pan or nursery bed.

**2.109 Proliferation** — A rapid and repeated production of new parts, as the formation of leafy parts from floral parts.

**2.110 Pruning** — The cutting of trees and shrubs to improve their growth and appearance.

**2.111 Pulverising** — Breaking the soil from lumps or clods down to finer state, either mechanically or by manual methods.

**2.112 Raking ( Raking Over )**

- a) Final cultivation by a rake to produce a fine tilth and bring to a true even surface prior to sowing, planting, or turfing.
- b) Drawing a rake across a surface to remove unwanted material, for example, raking stones from soil.
- c) Drawing of a spring tine rake or similar tool across turf to remove moss, leaves and litter.

**2.112.1 Raking In** — The incorporation of additional material, such as seed, fertilizers, and chemical compounds into the surface layer of the soil by raking.

**2.113 Rank ( Adjective )** — The unwanted vegetative growth.

**2.114 Re-setting** — Replanting

**2.115 Respiration** — Gaseous exchange by which the plant absorbs oxygen and gives off carbon dioxide.

**2.116 Ridging** — A method of cultivation in which the soil is thrown up into ridges.

**2.117 Rolling** — Passing a roller over a surface to crush or consolidate the material or to form a better surface.

**2.118 Rosette** — A condition in which the internodes are much shortened, giving the leaves a bunched or clustered appearance.

**2.119 Rotary Mowing** — The mowing of grass by a rotary type machine.

**2.120 Rotation** — A succession of different crops on a piece of ground.

**2.121 Rotavating** — Tilling the soil with a rotary action by means of a mechanical rotavator.

**2.122 Rough Cutting** — Maintenance of grass areas by hand-scythe, motor-scythe or similar tools.

**2.123 Scarifying** — The operation of breaking-up, loosening, incising or scratching a surface with an appropriate implement, usually preparatory to re-surfacing.

**2.124 Score** — To cut or slit to a preset depth, that is, the vertical cutting of turf prior to lifting.

**2.124.1 Screening ( *Sifting or Sieving* )** — The separation of materials, such as soil, compost, wood ash, leafsoil and peat into various grades of particle size by using either hand or mechanical sieves or screens. The finer materials are sifted from coarse, the degree of fineness depending on the number and size of mesh of the sieves or screens used ( the choice of synonym depending upon the implement used ).

**2.125 Scything**

a) The cutting of grass with a scythe.

b) Usually the cutting of long grass, either with a scythe or by a reciprocating knife or machine.

**2.126 Seasonal Bedding** — The planting of flowering or foliage plant in beds to give massive decorative displays.

**2.127 Slitting** — The use of a flat bladed implement to make a series of cuts through a fibrous mat of turf.

**2.128 Smother** — A cultural practice of controlling close growing weed growth by skimming the surface and turning with a spade to cover the green top growth with root, mat and soil.

**2.129 Soaking** — The application of water to plants in open ground, pots or containers, to the extent of saturating the soil.

**2.130 Sod Culture** — A method of orchard soil management in which a permanent perennial crops is grown between the trees, season and then allowed to remain on the ground. A limited area around the trees is hoed, spaded or otherwise tilled.

**2.131 Sod Mulch** — A method of orchard soil management in which a permanent perennial crop is grown between the trees, mowed once or twice during the growing season and then allowed to remain on the ground.



**2.132 Sod-Sowing** — The restoration of an existing grass sward by resowing after scarification or chemical destruction.

**2.133 Sour Sap** — A sour or fermented condition of the sap often associated with a high water table or other root disturbance and usually followed by the death of the tree.

**2.134 Spiking** — Perforation of turf with a solid tined implement.

**2.135 Spit** — A layer of soil in depth, equal to the blade of a spade.

**2.136 Sponging** — The treatment of plants by washing or wiping leaf surfaces and stems with soft water or insecticide, for display, routine maintenance or pest control.

**2.137 Spraying** — The application of water, other liquids or liquid mixtures containing insecticides or fungicides in the form of fine droplets produced under pressure.

**2.138 Spring Bedding** — The planting of flowering or foliage plants in beds to give massive decorative displays during springs.

**2.139 Springing** — The easing of soil compaction, usually under turf, by lightly levering with a fork.

**2.140 Staking** — The supporting of trees or shrubs against movement by attachment to one or more posts of wood or metal.

**2.141 Sterility** — The inability to produce seeds that will germinate.

**2.142 Summer Fallow** — Allowing land to lie idle for a season to conserve water for use the following season.

**2.143 Sunburn** — The killing of bark near the ground surface due to reflected heat rays, a form of sunscald.

**2.144 Sweeping** — The removal of leaves or debris by a brush, broom, or machine.

**2.145 Syringing** — The application under pressure of water or sprays by means of a hand syringe.

**2.146 Systemic Feeding** — To feed plants through their stem.

**2.147 Tillage** — The state or condition of being tilled or cultivated.

**2.148 Top-Dress** — To apply fresh soil, peat, compost or other material fertilizers or conditioners to the surface of soil or turf.

**2.149 Topiary Work** — The clipping of shrubs or small trees to train them into ornamental or fanciful shapes.

**2.150 Topping**

**2.150.1 *Topping of Grass*** — Lightly mowing.

**2.150.2 *Topping of Hedges and Plants*** — The shortening of leading shoots.

**2.150.3 *Topping of Trees*** — The shortening of leading shoots to encourage branching and to obtain better shape.

**2.151 *Training*** — The shaping of a plant by pruning, tying-in or other means to produce a desired form.

**2.152 Treading**

**2.152.1 *Treading In/Treading Up*** — The firming of soil around a plant after replanting by using the feet.

**2.153 *Trenching*** — A type of terracing where small trenches are constructed across the land slope in order to intercept and either to drain it safely or to conserve it on land, particularly for improving soil condition of the degraded land slopes where afforestation of pasture development programmes are taken. When the trenches are made on contour, it is called contour trenching and when the trenches are provided with a gradient across land slope, it is called graded trenching.

**2.154 *Trimming*** — Slightly clipping upon any plant material to align edge or shape.

**2.155 *Turfing*** — Laying a lawn with the turfs lifted from an established lawn.

**2.156 *Turf-Perforation*** — The operation of making a series of holes through a grass sward into the soil beneath with a spiked peat or hollow tined implement to improve the free passage of air, moisture and nutrients.

**2.157 *Twig Staking*** — Supporting of plants by twigs of brushwood inserted into the ground.

**2.158 *Underfill*** — Packing soil beneath sunken turf to raise it to the desired level.

**2.159 *Virescence*** — A disorder in which certain vegetative or floral structures become and remain abnormally vegetative and green.

**2.160 *Weed*** — Undesirable or unwanted plants.

**2.161 *Weeding*** — The manual, mechanical or chemical removal of weeds.

**2.162 *Weeding Out*** — The removal of undesirable or unwanted plants.

**2.163 Wind Burn** — A disorder of the leaves in which first their edges and later perhaps the entire leaf dries out and presents a scorched appearance.

**2.164 Witches Broom** — A disorder of the stem or it's branches in which there is an extreme amount of branching, resulting in a very brushy condition, sometimes caused by fungus attack.

**2.165 Working In** — Any method of incorporating into the upper levels of the soil or into turf any substance for its improvement.

**2.166 Xeropyte** — A plant that can endure extreme drought.

# INTERNATIONAL SYSTEM OF UNITS ( SI UNITS )

## Base Units

<i>Quantity</i>	<i>Unit</i>	<i>Symbol</i>
Length	metre	m
Mass	kilogram	kg
Time	second	s
Electric current	ampere	A
Thermodynamic temperature	kelvin	K
Luminous intensity	candela	cd
Amount of substance	mole	mol

## Supplementary Units

<i>Quantity</i>	<i>Unit</i>	<i>Symbol</i>
Plane angle	radian	rad
Solid angle	steradian	sr

## Derived Units

<i>Quantity</i>	<i>Unit</i>	<i>Symbol</i>	<i>Definition</i>
Force	newton	N	1 N=1kg. m/s <sup>2</sup>
Energy	joule	J	1 J=1 N.m
Power	watt	W	1 W=1 J/s
Flux	weber	Wb	1 Wb=1 V.s
Flux density	tesla	T	1 T=1 Wb/m <sup>2</sup>
Frequency	hertz	Hz	1 Hz=1 c/s (s <sup>-1</sup> )
Electric conductance	siemens	S	1 S=1 A/V
Electromotive force	volt	V	1 V=1 W/A
Pressure, stress	pascal	Pa	1 Pa=1 N/m <sup>2</sup>

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